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EXAMINER	
TRAN, CON P	
ART UNIT	**PAPER NUMBER**
2644	

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/412,140	SMITH, CLIVE	
	Examiner	Art Unit	
	Con P. Tran	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 19, 23, and 31** are rejected under 35 U.S.C. 102(b) as being anticipated by Bredesen et al. U.S. Patent 5,010,889 (hereinafter, "Bredesen").

Regarding **claim 19,** Bredesen teaches an electronic stethoscope with expanded program execution and communications capability, comprising (see Figs. 1, 2, and respective portions of the specification), comprising:

a portable housing (100, Fig. 1) in the physical form of a stethoscope that is wearable around the neck or shoulder of an operator, to house further elements of the invention comprising (Fig. 1):

central processing unit (207, Fig. 2),

digital memory means (217, Fig. 2),

software programs stored in digital memory means (217, 219, Fig. 2) and executable by said central processing unit (207, Fig. 2; col. 4, lines 25-33,

digital communications means (peripheral data port, not shown, col. 3, lines 20-26);

wherein software programs can be downloaded via digital communications means, stored in digital memory, and executed by central processing unit (col. 10, line 65 – col. 11, line 40).

Regarding **claim 23**, Bredesen teaches wherein digital communications means is a wired cable (four wire, col. 7. lines 42-50).

Regarding **claim 31**, Bredesen teaches wherein software includes algorithms for the processing of auscultation sounds (col. 8, lines 60 – col. 9, line 12).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bredesen et al. U.S. Patent 5,010,889 (hereinafter, "Bredesen").

Regarding **claim 20**, Bredesen teaches the electronic stethoscope us in Claim 19, wherein digital memory means is non-volatile memory is UV erasable PROM (col. 5, lines 7-21). Bredesen does not explicitly disclose wherein digital memory means is non-volatile memory is selected from the group Flash memory, EEPROM, battery-bucked RAM. However, using EEPROM is well known in the art.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to select EEPROM as digital memory since EEPROM is readily available component as an alternate choice.

5. **Claims 21 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bredesen et al. U.S. Patent 5,010,889 (hereinafter, "Bredesen") in view of Gavriely (U.S 6, 261,238).

Regarding **claim 21**, Bredesen teaches the electronic stethoscope us in Claim 19. However, Bredesen does not explicitly disclose wherein digital memory means is magnetic media with software programs storage.

Gavriely discloses phonopneumograph system having removable opto-magnetic disk (col. 16, lines 20-26).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to incorporate an opto-magnetic disk of Gavriely teaching with Bredesen stethoscope for purpose providing a type of permanent archival data, as suggested by Gavriely in column 16, lines 34-35.

Regarding **claim 22**, Gavriely, as modified, teaches wherein digital memory means is physically removable from electronic stethoscope housing (col. 25, lines 18-26).

6. **Claims 24-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bredesen et al. U.S. Patent 5,010,889 (hereinafter, "Bredesen") in view of Erten et al. U.S. Patent 6,236,862 (hereinafter, "Erten") .

Regarding **claim 24**, Bredesen teaches the electronic stethoscope us in Claim 19. However, Bredesen does not explicitly disclose wherein digital communications means is an infrared optical communications link.

Erten discloses a signal separation and recovery apparatus (col. 2, lines 2-14) for stethoscope (col. 22, lines 51-58) using an infrared optical communications link (col. 16, lines 42-46).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to incorporate a signal separation and recovery apparatus of Erten teaching with Bredesen stethoscope for purpose providing expand usage of fast multiple diffused light communication devices, as suggested by Erten in column 16, lines 64-66.

Regarding **claim 25,** Erten teaches wherein digital communications means is a wireless communications link (col. 15, lines 45-55).

Regarding **claim 26**, Bredesen teaches the electronic stethoscope us in Claim 19. However, Bredesen does not explicitly disclose wherein digital communications means is a wireless communications means physically removable from said electronic stethoscope housing. However, making a component removable is well known in the art.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to apply a removable technique of a wireless communications means from said electronic stethoscope housing for purpose of ease of modification.

Regarding **claim 27,** Erten teaches wherein digital communications moans uses an 802.11 communications protocol (wireless LAN; col. 15, lines 45-55).

Regarding **claim 28,** Erten teaches wherein digital communications means uses an Internet protocol selected from the group TCP/IP, FTP, PPP communications protocols (Internet; col. 15, lines 45-55).

7. **Claims 29, 32-33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bredesen et al. U.S. Patent 5,010,889 (hereinafter, "Bredesen") in view of Iliff U.S. Patent 6,236,862.

Regarding **claim 29**, Bredesen teaches the electronic stethoscope us in Claim 19. However, Bredesen does not explicitly disclose one or, more software programs are medical information software programs selected from the group drug dosage database access software, drug interaction database access software, medical research database access software.

Iliff discloses a medical diagnostic and treatment advice (MDATA) system (100, Fig. 1; col. 7, lines 32-36) having tele-stethoscope device (780, col. 52, lines 40-45) and to provide patient medication database (270, col. 25, lines 1-10)

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to incorporate a medical diagnostic and treatment advice system of Iliff teaching with Bredesen stethoscope for purpose providing medical service whenever desired by the caller, as suggested by Iliff in column 3, lines 47-49.

Regarding **claim 32**, Bredesen teaches the electronic stethoscope with expanded physiological measurement capability, comprising:

a portable housing (100, Fig. 1) in the physical form of a stethoscope that is wearable around the neck or shoulder of an operator, to house further elements of the invention comprising (Fig. 1):

central processing unit (207, Fig. 2),

battery power supply (201, Fig. 2),

first physiological measurement. means for detecting and reproducing body sounds (auscultation sounds, col. 8, lines 60 – col. 9, line 12);

wherein central processing unit (207) and battery power supply (201) provide control and electrical power supply respectively to all of said physiological measurement means, and housing provides a unified portable platform for carrying all said elements (see Figs 1, 2).

However, Bredesen does not explicitly disclose additional physiclogical measurement means selected from one or more of the group blood oxygen measurement means, blood glucose measurement means.

Iliff discloses a medical diagnostic and treatment advice (MDATA) system (100, Fig. 1; col. 7, lines 32-36) having glucometer to measure bloodsugar (col. 51, lines 36-43).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to incorporate a medical diagnostic and treatment advice system of Iliff teaching with Bredesen stethoscope for purpose increasing the accuracy of the diagnosis, as suggested by Iliff in column 51, lines 5-6.

Regarding **claim 33**, Bredesen teaches wherein additional physiological measurement means are in modular form that are physically removable from said portable housing (col. 51, lines 27-43).

8. **Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bredesen et al. U.S. Patent 5,010,889 (hereinafter, "Bredesen") in view of Iliff U.S. Patent 6,236,862, and further in view of Plesko U.S. 5,880,452.

Regarding **claim 30**, Bredesen teaches the electronic stethoscope as in Claim 29. However, Bredesen in view of Ilff does not explicitly disclose further comprising a barcode reader operatively connected to central processing unit such that database reading and writing can be effect-Rd by barcode scanner input.

Plesko discloses a stethoscope (218, Fig. 7) plugged into an integrated barcode scanner terminal (200, Figs. 1, 7; col. 6, lines 3-9; col. 13, lines 1-20).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to incorporate a an integrated barcode scanner terminal of Plesko teaching with Bredesen stethoscope for purpose providing a medical data gathering terminal in the form of a PCMCIA card for the health care industry, as suggested by Plesko in column 5, lines 7-9.

9. **Claim 34** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bredesen et al. U.S. Patent 5,010,889 (hereinafter, "Bredesen") in view of Such U.S. Patent 5,457,751.

Regarding **claim 34**, Bredesen teaches the electronic stethoscope with expanded physiological measurement capability, comprising:

auscultation sensor and electronics to sense body sound (auscultation sounds, col. 8, lines 60 – col. 9, line 12),

headphones (104, Fig. 1) for reproducing body sounds,

digital communications means (peripheral data port, not shown, col. 3, lines 20-26);

user input and control means (keypad 223, Fig. 2; col. 4, lines 7-12),

wherein auscultation sensor, headphones, virtual display, user input and control means, and digital communications means are housed in the physical form of a stethoscope that can he worn by an operator around the neck or on the shoulders (see 100, Fig. 1).

However, Bredesen does not explicitly disclose a miniature virtual display device which provides information display by placing the eye close to the display screen and viewing a virtual image,.

Such discloses an electro-optical apparatus such as binocular, virtual vision are designed to be worn on the user's head (col. 4, lines 19-34) as in stethoscope (col. 1, lines 43-48).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to incorporate an electro-optical apparatus of Such teaching with Bredesen stethoscope for purpose being is highly compatible with the simultaneous use of other headgear, as suggested by Such in column 2, lines 55-56.

10. **Claim 35** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bredesen et al. U.S. Patent 5,010,889 (hereinafter, "Bredesen") in view of Plesko U.S. 5,880,452.

Regarding **claim 35**, Bredesen teaches the electronic stethoscope with expanded physiological measurement capability, comprising:

a portable housing (100, Fig. 1) in the physical form of a stethoscope that is wearable around the neck or shoulder of an operator, to house further elements of the invention comprising (Fig. 1):

central processing unit (207, Fig. 2),

battery power supply (201, Fig. 2),

first physiological measurement. means for detecting and reproducing body sounds (auscultation sounds, col. 8, lines 60 – col. 9, line 12);

wherein central processing unit (207) and battery power supply (201) provide control and electrical power supply respectively to all of said physiological measurement means, and housing provides a unified portable platform for carrying all said elements (see Figs 1, 2).

However, Bredesen does not explicitly disclose additional physiclogical measurement means comprising one or more of the group barcode, scanner for optical scanning of barcode labels for patient records, video input means to record still or moving images of a patient.

Plesko discloses a stethoscope (218, Fig. 7) plugged into an integrated barcode scanner terminal (200, Figs. 1, 7; col. 6, lines 3-9; col. 13, lines 1-20).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to incorporate a an integrated barcode scanner terminal of Plesko teaching with Bredesen stethoscope for purpose providing a medical data gathering terminal in the form of a PCMCIA card for the health care industry, as suggested by Plesko in column 5, lines 7-9.

11. **Claim 36** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bredesen et al. U.S. Patent 5,010,889 (hereinafter, "Bredesen") in view of Grasfield et al. U.S. Patent 5,825,895 (hereinafter, "Grasfield").

Regarding **claim 36**, Bredesen teaches the electronic stethoscope with expanded physiological measurement capability, comprising:

a portable housing (100, Fig. 1) in the physical form of a stethoscope that is wearable around the neck or shoulder of an operator, to house further elements of the invention comprising (Fig. 1):

central processing unit (207, Fig. 2),

battery power supply (201, Fig. 2),

first physiological measurement. means for detecting and reproducing body sounds (auscultation sounds, col. 8, lines 60 – col. 9, line 12);

digital memory means (217, 219, Fig. 2) for recording body sound (col. 35, lines 56-64; col. 36, lines 30-37);

headphones (104, Fig. 1) for audio reproduction integrated into portable housing (i.e., stethoscope),

wherein central processing unit (207) and battery power supply (201) and digital memory means (217, 219, Fig. 2) provide control provide control, electrical power, and storage capability, respectively, to both first and second audio input means, said headphones provide audio output for both first and second input means, and said housing provides a unified portable platform for housing and carrying said elements (see Figs 1, 2, and respective portions of the specification).

However, Bredesen does not explicitly disclose second input for detecting voice sound.

Grasfield discloses an electronic stethoscope (10, Figs. 1, 2, 8) having microphone (54, Fig. 8) for detecting voice sound (col. 6, lines 49-56).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made to incorporate microphone of Grasfield teaching with Bredesen stethoscope for purpose enhancement performance characteristics, as suggested by Grasfield in column 1, lines 59-60.

Response to Arguments

12. Applicant's arguments with respect to claims 19-36 have been considered but are moot in view of the new grounds of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Con P. Tran whose telephone number is (571) 272-7532. The examiner can normally be reached on M - F (8:30 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Vivian C. Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cpt CPJ
November 28, 2005

XU MEI
PRIMARY EXAMINER